

## IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Re Application of: Gorenstein, et al.

Serial No.: 09/425,804

Filing Date: October 25, 1999

Examiner: Zitomer, Stephanie W.

Group No.: 1634

For: THIO-MODIFIED APTAMER SYNTHETIC METHODS AND COMPOSITIONS

**CERTIFICATE OF MAILING**

Date of Deposit: August 7, 2003

I hereby certify that the papers listed below and attached hereto are being deposited with the United States Postal Service via First Class Mail, with sufficient postage, under 37 C.F.R. § 1.8 on the date indicated above and addressed to: Commissioner for Patents, P. O. Box 1450, Alexandria, VA 22313-1450

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Edwin S. Flores

Printed Name

Commissioner for Patents  
P. O. Box 1450  
Alexandria, VA 22313-1450

**SUPPLEMENTAL INFORMATION DISCLOSURE STATEMENT**

As listed on the accompanying form PTO-1449, submitted herewith are copies of the indicated references which Applicant believes may be material to the examination of the above-identified application, and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

The filing of this Information Disclosure Statement shall not be construed as a representation that a search has been made, an admission that the information cited is, or is considered to be, material to patentability, or that no other material information exists. Further, the filing of this Information Disclosure Statement shall not be construed as an admission against interest in any manner. Written notification that the enclosed references have been considered in their entirety by return of a copy of the enclosed form, completed by the Examiner, is respectfully requested.

**IDENTIFICATION OF TIME OF FILING THE  
INFORMATION DISCLOSURE STATEMENT**

- ☐ This Information Disclosure Statement is being filed within three months of the filing date of the national application.
- ☐ This Information Disclosure Statement is being filed within three months of the date of entry of the national stage as set forth in § 1.491 in an international application.
- ☐ This Information Disclosure Statement is being filed before the mailing date of the First Office Action on the merits.
- ☒ This Information Disclosure Statement is being filed after three months of the filing date of the national application or after three months of the date of entry of the national stage as set forth in § 1.491 in an international application or after the mailing date of the first Office Action on the merits, but before the mailing date of either a final action under § 1.113 or a notice of allowance under § 1.311, or an action that otherwise closes prosecution in the application.

Accompanying this transmittal is:

- ☒ a statement specified in 37 CFR § 1.97(e); or
- ☐ a fee set forth in 37 CFR § 1.17(p)
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Accompanying this transmittal is:

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**STATEMENT FOR INFORMATION DISCLOSURE STATEMENT 37 CFR § 1.97(e)**

(Only if Required Above)

I, the person(s) signing below hereby states that:


- ☒ [ X ] each item of information contained in the information disclosure statement was first cited in any communication from a foreign patent office in a counterpart foreign application not more than three months prior to the filing of the information disclosure statement. 37 CFR § 1.97(e)(1); or
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**FEE PAYMENT**

- ☐ Attached is a check in the amount of \$ \_\_\_\_\_
- ☐ Charge Deposit Account No. \_\_\_\_\_ in the amount of \$ \_\_\_\_\_.
- ☒ Applicants believe no additional fees are due for the filing of this IDS.

Respectfully submitted,

CHALKER FLORES, LLP



\_\_\_\_\_  
Edwin Flores  
Registration No. 38,453  
Attorneys for Applicants

Dated: August 7, 2003

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STATEMENT BY APPLICANT**

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Sheet 1 of 4**Complete if Known**

Application Number	09/425,804
Filing Date	October 25, 1999
First Named Inventor	Gorenstein, et al.
Art Unit	1634
Examiner Name	Zitomer, Stephanie W.
Attorney Docket No.	UTMB:1001

**U.S. PATENT DOCUMENTS**

Examiner Initials*	Cite No. 1	Document Number Number-Kind Code <sup>2</sup> (if any)	Publication Date MM-DD-YYYY	Names of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
		US-5,660,985 A	August 26, 1997	KIRSCHENHEUTER, GARY P., et al.)	Entire Document
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**FOREIGN PATENT DOCUMENTS**

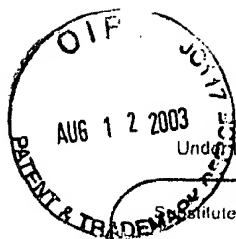
Examiner Initials*	Cite No. 1	Foreign Patent Document	Publication Date MM-DD-YYYY	Names of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant	T <sup>6</sup>
		WO 92 14842 A	September 3, 1992	GILEAD SCIENCES, INC.	Claims 1, 11	
		WO 93 08296 A	April 29, 1993	ISIS PHARMACEUTICALS, INC.	Claims 14, 26	
		WO 96 19572 A	June 27, 1996	HYBRIDON, INC; TANG JINYAN (US); ROSKEY	Entire Document	

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**NON PATENT LITERATURE DOCUMENTS**

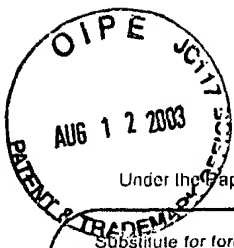
Examiner Initials*	Cite No. 1	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	2
		BIELINSKA A ET AL: "REGULATION OF GENE EXPRESSION WITH DOUBLE-STRANDED PHOSPHOROTHIOATE OLIGONUCLEOTIDES" SCIENCE, AMERICAN ASSOCIATION FOR THE ADVANCEMENT OF SCIENCE, , US, vol. 250, 16 November 1990 (1990-11-16), pages 997-1000, XP002065516 ISSN: 0036-8075	
		KUNSCH, CHARLES ET AL: "Selection of optimal.kappa.B/Rel DNA-binding motifs: interaction of bot subunits of NF-.kappa.B with DNA is required for transcriptional activation" MOLECULAR AND CELLULAR BIOLOGY ( 1992 ), 12(10), 4412 -2, XP009003474	
		ANTSYPovich, SERGEI ET AL: "Cross-linked DNA duplexes. Exonuclease stability and interactio with the nucleic transcription factor of the.kappa. light-chai enhancer (NF-. kappa. B )" EUROPEAN JOURNAL OF BIOCHEMISTRY (1998), 255(2), 414-421, XP002226148	

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**NON PATENT LITERATURE DOCUMENTS**

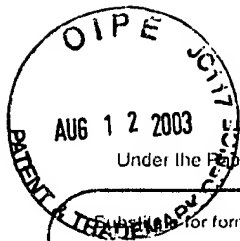
Examiner Initials*	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-Issue number(s), publisher, city and/or country where published.	T <sup>2</sup>
		SHARMA, H.W. ET AL.: "Transcription factor decoy approach to decipher the role of NF-KB in oncogenesis" ANTICANCER RESEARCH, vol. 16, 1996, pages 61-70, XP009003192	
		MORISHITA, R.M. ET AL.: "In vivo transfection of cis element "decoy" against nuclear factor-kB binding site prevents myocardial infarction" NATURE MEDICINE, vol. 3, no. 8, 1997, pages 894-899, XP009003193	
		KHALED, ANNETTE R. ET AL: "Use of phosphorothioate -modified oligodeoxynucleotides to inhibit NF- kappa. B expression and lymphocyte function" CLINICAL IMMUNOLOGY AND IMMUNOPATHOLOGY (1998), 86(2), 170-179, XP009003515	

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		STEC, W.J. ET AL.: "Deoxyribonucleoside 3'-O-(2-thio- and 2-oxo-"spiro"-4,4-pentamethylene-1,3,2-oxa thiaphospholane)s" J. AM.CHEM. SOC., vol. 120, 1998, pages 7156-7167, XP002239290	
		UHLMANN E ET AL: "STUDIES ON THE MECHANISM OF STABILIZATION OF PARTIALLY PHOSPHOROTHIOATED OLIGONUCLEOTIDES AGAINST NUCLEOLYTIC DEGRADATION" ANTISENSE & NUCLEIC ACID DRUG DEVELOPMENT, MARY ANN LIEBERT, INC., NEW YORK, US, vol. 7, no. 4, August 1997 (1997-08), pages 345-350, XP001117604 ISSN: 1087-2906	
		NAKAMAYE, KAY L. ET AL: "Direct sequencing of polymerase chain reaction amplified DNA fragments through the incorporation of deoxynucleoside.alpha.- thiotriphosphates" NUCLEIC ACIDS RESEARCH (1988), 16(21), 9947-59, 1988, XP001097564	

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